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Rose Thorn Staff
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Companies sponsor scholars

As summer jobs, and jobs in general, are getting harder and harder to find, a few select students at Rose will already have their job waiting for them. These students are the recipients of combination scholarship/internships with such companies as General Motors and Jones and Laughlin Steel.

For many years now various corporations have sponsored these scholarships: General Motors being the most visible but Jones and Laughlin and Caterpillar Tractor also being present. Every year each corporation notifies Rose-Hulman to indicate how many scholarships are available for the coming year, and in what area (major)the positions are. From there, the "slots" are sent to the division heads of the appropriate discipline. Candidates which the department members feel are outstanding are then nominated for the award.

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the Rose Thorn

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Drama Club is redrafted

by Chris McGill
Contributor

Since December, the officers of the Rose Drama Club have redrafted the constitution governing the organization. The previous constitution, which was drafted back in 1964 and 1965, was very effective for about 12 years, but as time progressed problems with the structure and running of the organization began to become major issues. Amending the constitution was discussed as a solution, but the list of proposed amendments soon became to be longer than the constitution. As a result, the officers decided that redrafting the constitution would be the best option.

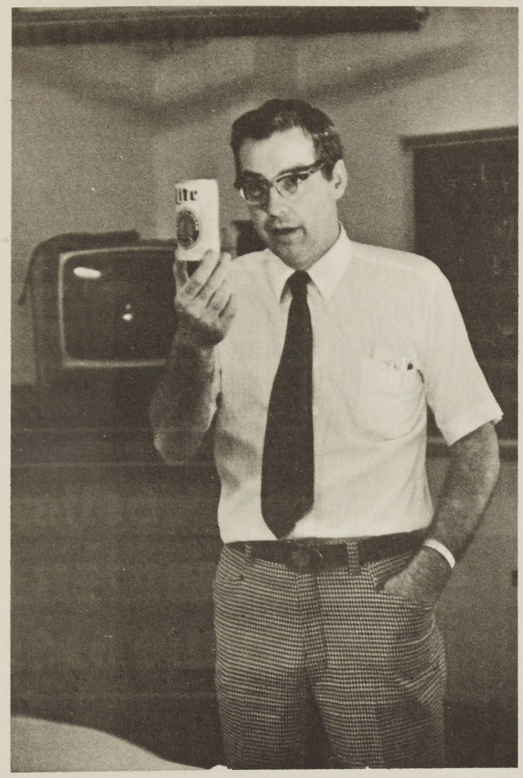
Actual work on the draft began after Christmas break. The final version was presented to the membership for adoption on February 17 where it was unanimously accepted. The constitution still needs the approval of the faculty, however.

Also at the meeting, officers for the 1983-84 year were elected. The club elected John Rolfing as President, Kurt Staiger to serve as Vice-President, Christopher McGill will remain as Secretary, and Harold Hamilton is to be the Treasurer. These offices will be assumed on the first day of the Spring Quarter. One of the first duties of the officers will be to appoint a Stage Manager.

Several members of the club are meeting with Steve Spicklemire, the current Vice President, to select a play and musical for next year's productions.

Last Saturday, Feb. 19, the Drama Club held auditions for the Spring Musical, "Roar of the Greasepaint, Smell of the Crowd." There was a good turnout, and a cast list will be posted later.

The dates for the musical (and this one promises to be a good one) are April 22 at 8:00 p.m. and April 23 at 3:30 and 8:30 p.m. (Parents' Weekend), and April 29 and 30 at 8:00 p.m. All of these performances will be in the Rose Auditorium.



Dr. Ovens gives a presentation to one of his favorite subjects — manufacturing, of course!

ASME forges ahead

by David J. Dvorak

The Rose-Hulman Chapter of the ASME has a busy spring season ahead of it . . . calling for lots of student participation! Earlier this year the chapter sponsored a pizza party, a "mock interview" session (complete with videotapes), and presentations by an engineering consultant/entrepreneur, a Western Electric manager, and a professor. This last presentation was by Dr. Ovens of the ME department, and dealt with the engineering problems involved in making aluminum (beer) cans. The speech served not only to inform about beer cans, but also to illustrate the practical nature of Dr. Oven's new manufacturing classes (Other classes in the mfg. area include those by Drs. Smith (materials science) and Morin (CAD/CAM, Robotics).

Upcoming ASME activities include RHIT run-off for the "Old Guard" paper contest, on Feb. 23, in which students will give oral presentations of their design or research work, the March 22 election of new officers, and the annual trip to the ASME design show in Chicago, on March 30. On April 7, 8, and 9 (a Thur., Fri,. and Sat.,), the ASME Region VI Student Conference will be held at SIU, Carbondale, Ill. This is an event not to be missed! And on April 14, Frank Scott, the ASME national president elect will come to Rose to speak to our student section.

April 23 is "Parent's Day" here at Rose, and mechanical engineering students are invited to present their projects or research during the Rose Show. If you have any questions about this, please contact this writer or Dr. North.

On April 26, RHIT hosts the Central Indiana Section of ASME with an evening banquet, and a trip to Marble Hill nuclear power plant is planned for May 4, 1982. This is the season to participate!

Projects challenge E.E.'s

by Cary Stokes

What's the single largest cause of high blood pressure among Rose EE's? What course is most likely to keep senior EE's in Terre Haute over the summer after graduation? What course dominates the thoughts and time of senior EE's during winter quarter? What one course is almost always asked about in job interviews even though it is only two credit hours? The answer to these questions is listed in the Rose catalog as simply "EE 498 Engineering Projects and Design" and is commonly known as the senior project.

Each EE senior must design and build a project agreeable to both himself and his chosen instructor. The project choices are unlimited. The EE faculty give three basic guidelines for choosing a project: 1) choose something with a personal type interest to yourself, 2) the project should have a use in industry, and 3) it must be simple enough that it an be done with available materials and lab equipment. With only these guidelines, just selecting a project is hard, and designing the project isn't easy, but the real test comes in making it work. Professor Derry notes the workload by saying that the projects are a lot of work for two credits. One senior notes, "Sure it's a lot of work, you have to convince your advisor that you have put enough work into it to pass. Otherwise, you have to finish it during the summer."

Some current projects include: a marquee display that moves words along a marquee made up of over 400 LED's, a digitally controlled stereo equalizer, a floppy disk interface for the Waters Computer Center, an automobile computer that displays instantaneous gas mileage, a work time clock for the mailroom that is interfaced to the payroll computer, and a couple of projects using computer-synthesized speech.

Last year four students redesigned the Indianapolis 500 scoreboard. The 150 digit boards needed in the actual new board are being made at Applied Computing Devices here in Terre Haute and will eventually be set up at the track in Indianapolis. Another past project put to use was a respiration therapy machine that used respiration and heart rates to control the atmospheric composition in a controlled environment.

Despite the grandeur of these projects, the prize for ingenuity must go to the former Rose EE who made an Erotic Color Organ. He found a study which showed that certain frequencies and rhythms of lights have the affect of aphrodisiac on the females of our species. He then made a color organ that displayed these patterns to music. It is still not known how the professor who graded it determined whether or not the organ actually accomplished its goal.

FRATERNITY RHO

by Jim Grimshaw

On Saturday, February 19, the Pledge Class of Alpha Tau Omega sponsored the Second Annual Special Olympics Basketball Tournament at Shook Fieldhouse. Thirteen teams from around the Terre Haute area, consisting of players from junior high age to 50 years old, competed for awards in different divisions. Lunch for the athletes was provided by Hardee's and McDonald's.

On February 5th and 6th, Lambda Chi traveled to Miami University of Ohio for their walkout. About 60 brothers and Associate Members went on the annual chapter road trip. The next weekend, Delta Gamma from ISU and Lambda Chi teamed up for a trade party.

The fraternity of Phi Gamma Delta held its Fifth Annual Fiji Invitational Charity Track Meet on Februarv 13. The competitors were fourth grade students from local elementary schools. The event raised approximately $300, which was donated to the Special Olympics.

Delta Sigma Phi elected officers for the coming year February 7. The new officers are: Dave Eubank, President; Todd Kuhse, Vice President; Chris Piedmonte, Secretary; Stu Sullivan, Treasurer; Mark Thoreson, Engineered Leadership Director; Jim Vennard Rush, Director; and Duawin Ake, House Manager.

IEEE presentation well received

by Marcelo Copat

On Monday, February 21, 1983, the student chapter of IEEE sponsored a presentation on microprocessors. The guest speaker was Richard E. Schue, a 1975 alumnus of Rose-Hulman who majored in electrical engineering and who is currently the regional applications specialist for INTEL corporation.

About eighty students and faculty members attended this meeting making it the most successful IEEE function this year. Dr. Keith Hoover, faculty advisor to the IEEE, believes that high attendance was largely due to the importance of microprocessors in today's technological world. INTEL developed the first microprocessor, the 4004, in 1971 and has made constant design improvements since then to become the leader in the microprocessor industry. High expectations about the quality of the presentation and good advertisement also helped to boost up attendence.

After the presentation, Schue mentioned that he was impressed with the changes the school was making towards the updating of the electrical engineering program.

A meeting of **ALL** IEEE members is scheduled for the second week after break. Some of the discussion will be geared towards Parent's Day displays with the intent of showing up the Chem. E's. So show your support, get involved. For being the best organization at Rose-Hulman we are sure keeping it a secret!

Spring Prom set for April 9

Yes, it's true! There will be a Spring Prom here at Rose. So, start thinking about who to take. The Prom will be a semi-formal event (ie., tux's not required) held on Saturday the 9th of April at 9:00 p.m. Music will be supplied by the contemporary rock band Spiritz. Full dance lighting including mirrored balls, chasers and color organ will be supplied by the Drama Club. Admission price is set at $5.00 per couple with the rest of the tab picked up by the Sophomore class. So, start looking for your date.

It has not been decided yet when tickets for this event will go on sale. For more information contact Dana Simonson, ext. 268 or Box 500.

Slavin receives fellowship

by Mike Sullivan

Senior David Slavin has received an American Physical Society-sponsored summer intern fellowship. This internship gives qualified students who plan to continue in graduate study an opportunity for summer jobs in research and development.

Slavin, a physics major, will be doing some state of the art work in his intended specialty of applied optics. He has already been offered positions at eight major corporations nationwide including Bell Labs, IBM, and Battel Labs, the largest non-profit research organization in the world.

The fellowship was not advertised very well this year with only one poster, Slavin said. Juniors interested in applying for one next year are encouraged to see Dr. Khorana.

Thorn EDITORIAL

Are computers needed?

by John Marum

Ever since Carnegie-Mellon made the decision to require personal computers, students here have been wondering if Rose-Hulman will add its name to the list of engineering schools which require personal computers. But before Rose jumps on the bandwagon, serious consideration of the topic is needed.

There are advantages to requiring a personal computer. In the age of ever expanding computer usage, personal computers could take some of the workload off of the 11/70 and V.A.X. Not only would this mean that for many simpler programs a student would not have to go down to the "center," but also that when the '70 or V.A.X. did have to be used, there would be less of a wait to get a terminal (as well as less of a wait when running or compiling a program).

As personal computers become more and more commonplace, it would seem advantageous for students to already have experience with them before graduation.

However, one must weigh these advantages against the cost of a personal computer. The computer, which would cost anywhere from $2000 to $4000, is tens of times more than one expects to pay for a pocket calculator. True, the personal computer does a whole lot more, but it also does a whole lot less than the '70 and V.A.X., both which are already available to students. What it boils down to is the student will be paying $500 to $1000 a year more for the convenience of not having to go to the computing center to run a program. Not much of a bargain.

As one works out the details, more problems emerge. First, there must be some way of getting software from the instructor to the student's computer. On the V.A.X., this was easily done by having a class account. With personal computers, this is not possible. Certainly one could not be required to write all the programs necessary (imagine P.C.A.P. as an assignment), yet any programs simple enough to be assigned could just as easily be performed on a programmable calculator or by hand.

Second, if there is a way to distribute the software, this would require all the computers to be identical. This could force students to buy a computer which they might never have wanted, perhaps even buy a second one just so that it was compatible.

Third, for many disciplines, only two credits of computer science is required. Requiring a computer costing thousands of dollars for what totals to a tiny fraction of a student's education is downright wasteful. The additional cost could best be spent elsewhere (such as for new lab equipment).

While the age of personal computers is coming, the time is not now. If computing skills is what is being sought after — teach them on the '70 or V.A.X. If the '70 and V.A.X. are being overloaded — stop requiring so many assignments to be done on them (many students get their assignments done first on a calculator, then go to the computer for a printout).

If and when personal computers do become as commonplace as the calculator, then it might be appropriate to require them. That time, however, is still years down the road.

FRANKLY SPEAKING .... by phil frank

Daffynitions

by John Rohlfing

Sooner or later most of us will be married. **Marriage and the Family** is a course offered here that is designed to look at the patterns and trends of marriage and the function of families. Perhaps the following terms will be of some assistance.

baby — mom and pop art.
bridegroom — a guy who lost his liberty in the pursuit of happiness.
children — small people who are not allowed to act the way their parents did at that age.
cousin — man from uncle.
father — a man whose daughter marries a man vastly her inferior mentally, but then gives birth to unbelievably brilliant grandchildren.
grandfather — a grandchild's press agent.
home — a place where a man is free to say anything he pleases because no one pays any attention to him.
honeymoon — a little peach and quiet.
in-laws — advice squad.
marriage — a long banquet with the dessert served first.
marriage license — a certificate that gives a woman the right to drive a man.
mother — someone who buys you underwear when you want a model plane.
planned parenthood — extra-sensible conception.
wife — a person who can ride through the most magnificent scenery in the world with her eyes glued to the speedometer.

Letters to the Editors

Dear Editor,

I'm a Jr. EE and I know my friends are tired of hearing me bitch, so here it is once and for all. DOES SOMEBODY HATE JR. EE'S OR WHAT? From my best estimate, about two thirds of the Jr. EE's are failing most of their classes this quarter. Now, while my friends tell me EE's are basically stupid, I find it hard to believe that this many are that stupid. It was bad enough after Elec. Mag. but then we get hit with Com. Sys. and Dynamics. It's one thing to teach a hard subject, but it's another to teach a subject and make it hard. I've decided it's a secret plot by the CS department to get some of the Jr. EE's to change majors. Actually, rumor has it someone is trying to cut some of the Jr. EE's. Something about too many or something . . . If someone could look into this it would be greatly appreciated by 60 plus Jr. EE's. But then after all we know rumors aren't ever true, are they?

Sincerely,
PDM

Speed of the snail has to do with its center of gravity. With a high-spiraled shell, it goes about two and a half feet an hour. With a low-spiraled shell, about 150 feet an hour.

The THORN

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Editor ..... John Marum
Assistant Editor ..... Dave Franke
Business Manager ..... Alan Yarcusko
Columnists ..... Andrew Thomas
Dana Hofheins, Don Corson
Gary Bechman, Dave Dvorak, Jim Grimshaw
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Mike Talley, Bob Mattingly
Faculty Advisor ..... Kent Harris

Karate Club holds tourney

by Bill Anderson
Contributor

Concentration, hard work and peak physical condition are all necessary for training any sport, yet one puts physical and mental limitations on the mind which surpasses most. This is the sport of Karate, a challenge for the best of athletes. Many styles of karate are trained in the U.S. today varying in origin from Korea to China and Japan. The various styles, though different in the individual physical training, all strive for total control of the body and mind.

Everyone has seen many of the "greats" in the old Bruce Lee movies along with the fascinating quests of the seemingly invisible ninja, yet few are aware of the more demure artist on campus. Rose claims several such artists who are now preparing for a tournament which is to be hosted by the Rose Tae-Kwon-Do club. The club headed by David Dmeter meets three days a week in the field house. Dave trains the members in the Korean art of self-defense.

The coming tournament is to be an open tourney consisting of individual competition as well as intercollegiate competion between teams from Rose, ISU, Purdue, and several other colleges. Each team competing will consist of five members, two black belts, and three under black belts. Three trophies will be given in this competition to the three teams with the highest number of wins following a series of bouts.

The individual competition will consist of several divisions including free sparring, form of kata division, breaking and weapons. These divisions are broken into several subdivisions according to the individual level of experience. The performances in each of the subdivisions will be judged and awards to the best three contenders in each subdivision will be given.

The tourney is to be directed by Han Sik Kwak of Terre Haute, and the intercollegiate competition is to be directed by Master K.S. from Purdue. The tourney is to be held in the Rose Field-House on March 26th. Admission will be $5 for adults, $3 for children, and free for Rose students bearing an I.D.

Scholarships Continued

Nominated candidates must complete an application which covers such areas as future career and education plans. After a waiting period, interviews are arranged with all the candidates. This allows the sponsoring company to get a first-hand look at the candidates and perhaps gather the deciding factors before making a final selection.

Scholars from this past year from Caterpillar are Jeff Jackson (M.E.), Brian Wade (E.E.), David Patterson (M.E.) and Mat Deuitch (E.E.). Jones and Laughlin scholars are Robert Jeffers (M.E.) and Tim Stacy (M.E.). General Motors has four current scholars, David DelToro (M.E.), Tony Koopman (M.E.), Scott Mabry (M.E.) and James Cramer (M.E.), and plans to add three more this year (two M.E.'s and one E.E.).

Dr. Jess Lucas, Dean of Students, said that he would like to see more companies get involved in the scholarship program as it is mutually beneficial: a few students get financial aid while the company gets some good help for the summer.

One current scholarship winner felt that while the work, on the whole, might not have been as challenging as he would have liked, it was better than he could have obtained elsewhere. When asked if he is considering his sponsor for full time employ, the recipient responded that he would give it serious consideration.

IM Sports Round-Up

by Dale Bennett

The winter quarter sports schedule has been pretty much completed and all that remains are the playoffs in each major and minor sport (basketball, volleyball and bowling). In minor basketball, there were four undefeated teams - LCA No. 4 (6-0), Sigma Nu No. 3 (7-0) and Scharpenberg (7-0). These four teams represent the best of their respective leagues and will be vying for the overall minor championship.

Minor volleyball also saw a high number of undefeated teams. Sigma Nu, Off Campus, Speed Alums, Speed 2B, Deming 'OA', Apt No. 2, and Speed 1B all had perfect records and will go for the gusto in their playoffs.

The minor handicap bowling league, which also finished league play last week, saw many resident hall teams and independent teams in the top spots in every league. First place finishers were: League A - Deming 3, B - Ind. No. 2, C - Ind. No. 1 and D - Mees.

In all the major leagues, the top four teams make it to the playoffs. Results of all playoff games will be published in the next addition of **The Rose Thorn.**

MINOR BASKETBALL

(1st & 2nd Place Teams)

A - (1) Ind. Blumberg
(2) BSB No. 3
B - (1) Mees
(2) Ind. No. 4
C - (1) LCA No. 4
(2) Ind. No. 91
D - (1) RCF
(2) Sigma Nu No. 2
E - (1) Sigma Nu No. 3
(2) Mees
F - (1) Sigma Nu No. 1
(2) BSB 2
H - (1) Scharp
(2) Apt. No. 5

MINOR VOLLEYBALL

(1st & 2nd Place Teams)

A - (1) Sigma Nu
(2) WBS
B - (1) Off Campus
(2) Fiji
C - (1) Speed Al.
(2) Mees No. 2
D - (1) Speed 2B
(2) Ind. No. 85
E - (1) Deming 'OA'
(2) Apt. No. 1
F - (1) Apt. No. 2
(2) Blumberg No. 2
H - (1) Speed 1B
(2) BSB 3 C

MINOR HANDICAP BOWLING

A - (1) Deming 3
(2) Blumberg
B - (1) Ind. No. 2
(2) Fiji
C - (1) Ind. No. 1
(2) BSB 2B
D - (1) Mees
(2) Speed 3A

MAJOR BOWLING

Sigma Nu	18-3
Faculty	18-6
ATO	15-6
Ind. No. 4	14-7
DSP	14-7
Ind. No. 8	6-15
LCA	5-16
Fiji	4-17
Apts.	2-19

MAJOR BASKETBALL*

LCA	9-0
Faculty	5-3
WBS	4-3
Sigma Nu	3-4
Fiji	3-4
Apts.	2-4
ATO	0-7

* Not Final Standings

MAJOR VOLLEYBALL

Ind. No. 2	10-1
Sigma Nu	9-3
LCA	9-3
Apts.	6-6
Fiji	5-7
ATO	4-9
DSP	0-12

Help the Engineer basketball team complete the 1982-83 season in winning style against 26-2 Grace College. 3 p.m. Saturday, Feb. 25. Time for the "Sixth Man" Engineer student body to have its best game of the season!

Page 5:

Sneaking a peak at finals

Using methods typical of this rag they call a paper the Page 5 staff has gained access to a few of the questions which will be appearing on finals next week. Below are some of the more difficult questions that will be appearing.

Chemical Engineering

A.R.A.T.'s Universal Red Sauce machine is capable of producing 25.3 servings of burrito sauce per minute. The students can only stomach 17.8 servings per minute. If we assume one day's production, then how many servings will be recycled into spaghetti sauce for the next day assuming equal servings?

Chemistry

0.750 moles of gin is dissolved in 0.250 moles of vermouth in an adiabatic constant pressure calorimeter. If the total heat capacity of the system is 670 calories per Kelvin and the temperature changes from 16.5 to 22 C., calculate the enthalpy of the solution in calories per mole. Neglect the effect of the olive.

Given elemental carbon and gaseous nitrogen, oxygen and hydrogen, determine a mechanism which would yield the D.N.A. of a Rhemus monkey. (Divine intervention is not allowed.)

Economics

Given high unemployment, a large government deficit, an increase in defense spending and more of Reagan's economic policies, determine a mechanism which would yield economic recovery. (Divine intervention is not allowed.)

Electrical Engineering

Given this quarter's workload, determine a mechanism which will yield graduation in less than six years. (Department intervention is required.)

Mechanical Engineering

Q. Given a case of beer and two bags of chips, how many other M.E.'s should you invite over?

A. 0.

Civil Engineering

Problem 1) Turn the page and begin.

Psychology

Below is a copy of a recent "Secular Shroud" commentary. Use this article to illustrate some of the various mental disorders covered in this course.